

AMENDMENTS TO THE CLAIMS

1.-18. (Cancelled)

19. (New) A method for creating a database comprising fingerprint/landmark pairs associated with media samples, the method comprising the steps of:

extracting a plurality of characteristics from a media sample;
transferring said plurality of characteristics to a server coupled with a database;
processing said characteristics into fingerprint/landmark pairs; and
storing said fingerprint/landmark pairs in said database.

20. (New) The method of claim 19 further comprising the step of:
simultaneously transferring metadata used to identify said media sample when
transferring said plurality of characteristics.

21 (New) The method of claim 20 further comprising the step of:
associating said metadata used to identify said media sample with said stored
fingerprint/landmark pairs.

22. (New) The method of claim 19 wherein said processing is executed by an
updateable or replaceable algorithm.

23. (New) The method of claim 19 further comprising the step of:
prior to extracting said characteristics, determining whether or not said database
already contains landmark/fingerprint pairs associated with said media sample.

24. (New) The method of claim 19 where said media comprises a compact disk or
digital video disk.

25. (New) The method of claim 19 where said media comprises a streaming
media.

26. (New) The method of claim 19 where said media comprises a file stored on a
user's computer.

27. (New) The method of claim 19 wherein said processing said characteristics into fingerprint/landmark pairs comprises the steps of:

compiling a list of distinctive and reproducible points in time at which fingerprints should be calculated; and

calculating one or more fingerprints at one or more said distinctive and reproducible points in time.

28. (New) The method of claim 19 wherein said characteristics are a member of the group comprising:

a frequency value of the strongest spectral peak in proximity to a landmark,
a plurality of frequency values of the strongest spectral peaks in proximity to a landmark,

LPC coefficients,

Cepstral Coefficients,

a single value that is a hashed function of multiple characteristics.

29. (New) The method of claim 27 wherein said compiling a list of distinctive and reproducible points in time at which fingerprints should be calculated comprises calculating the instantaneous power at said points in time and selecting a power maxima within those points in time.

30. (New) The method of claim 27 wherein said compiling a list of distinctive and reproducible points in time at which fingerprints should be calculated comprises calculating the absolute value of one or more spectral components at said points in time and finding the local maxima of said absolute value.

31. (New) The method of claim 19 wherein said extracting is accomplished using a data archiving service.

32. (New) The method of claim 19 wherein said extracted characteristics are associated with metadata from a media file.

33. (New) The method of claim 32 wherein said extracted characteristics are used to look up said metadata in a metadata database.
34. (New) The method of claim 19 further comprising:
creating an index of fingerprint/landmark pairs associated with said media samples and sorting said index according to fingerprint.
35. (New) An apparatus comprising a database of fingerprint/landmark pairs associated with media samples, said database comprising:
a plurality of stored fingerprint/landmark pairs, where said fingerprint/landmark pairs are constructed by:
extracting a plurality of characteristics from a media sample;
transferring said plurality of characteristics to a server coupled with a database;
processing said characteristics into fingerprint/landmark pairs;
36. (New) The apparatus of claim 35 where said database further comprises:
metadata used to identify said media sample associated with said stored fingerprint/landmark pairs.
37. (New) The apparatus of claim 35 wherein said processing is executed by an updateable or replaceable algorithm.
38. (New) The apparatus of claim 35 where said fingerprint/landmark pairs are further constructed by:
prior to extracting said characteristics, determining whether or not said database already contains landmark/fingerprint pairs associated with said media sample.
39. (New) The apparatus of claim 35 where said media comprises a compact disk or digital video disk.
40. (New) The apparatus of claim 35 where said media comprises a streaming media.

41. (New) The apparatus of claim 35 where said media comprises a file stored on a user's computer.

42. (New) The apparatus of claim 35 wherein said processing said characteristics into fingerprint/landmark pairs comprises the steps of:

compiling a list of distinctive and reproducible points in time at which fingerprints should be calculated; and

calculating one or more fingerprints at one or more said distinctive and reproducible points in time.

43. (New) The apparatus of claim 35 wherein said characteristics are a member of the group comprising:

a frequency value of the strongest spectral peak in proximity to a landmark,
a plurality of frequency values of the strongest spectral peaks in proximity to a landmark,

LPC coefficients,

Cepstral Coefficients,

a single value that is a hashed function of multiple characteristics.

44. (New) The apparatus of claim 42 wherein said compiling a list of distinctive and reproducible points in time at which fingerprints should be calculated comprises calculating the instantaneous power at said points in time and selecting a power maxima within those points in time.

45. (New) The apparatus of claim 42 wherein said compiling a list of distinctive and reproducible points in time at which fingerprints should be calculated comprises calculating the absolute value of one or more spectral components at said points in time and finding the local maxima of said absolute value.

46. (New) The apparatus of claim 35 wherein said extracting is accomplished using a data archiving service.

47. (New) The apparatus of claim 35 wherein said extracted characteristics are associated with metadata from a media file.

48. (New) The apparatus of claim 47 wherein said extracted characteristics are used to look up said metadata in a metadata database.

49. (New) The apparatus of claim 35 where said database further comprises: an index of fingerprint/landmark pairs associated with said media samples, said index sorted according to fingerprint.

50. (New) A method of creating a database of fingerprint/landmark pairs associated with an music sample comprising the steps of:
playing a music sample to be identified;
determining that the music sample is missing from said database;
extracting one or more of characteristics from the music sample, where said characteristics are common to distinctive and reproducible points in time within said music sample;
transferring said plurality of characteristics to a server coupled with a database;
processing, using an updateable or replaceable algorithm, said characteristics into fingerprint/landmark pairs;
storing said fingerprint/landmark pairs in said database; and
indexing said fingerprint/landmark pairs associated with said media samples, according to fingerprint.

51. (New) The method of claim 50 further comprising, when fingerprint/landmark pairs associated with said music sample the music sample are already contained in the database;

determining whether or not said characteristics were processed with a most recent version of said updateable or replaceable algorithm;

updating said version of said updateable or replaceable algorithm, when it is determined that said characteristics were processed with an old version, and processing said characteristics with said most recent version of said algorithm.